

**Abstract**

The invention relates to a process for the removal of sour gas from pressurised  
4 natural gas which polluted by sulphur compounds and other sour gas  
compounds,

- the natural gas, which is to be desulphurised, being initially fed into sour gas absorption unit, in which the sulphur components and any other components are absorbed by a physically acting solution,
- the absorbate being heated,
- the absorbate being fed into a high-pressure flash unit, in which the sour-gas-poor absorbent and desorbed sour gas contained in the resulting mixture are separated,
- the desorbed sour gas being cooled and the vaporised absorbent being condensed out of the sour gas stream,
- a pressure being set in the high-pressure flash unit that permits the desorbed sour gas to be condensed by means of cooling water or cooling air,
- the sour-gas-poor absorbent from the high-pressure flash unit being freed from sour gas residues in a gas stripping unit by means of stripping gas, and
- the absorbent obtained being cooled and recycled to the sour gas absorption unit.

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